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EXAMINER	
NGUYEN, VAN KIM T	
ART UNIT	PAPER NUMBER
2456	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,033	GUPTA ET AL.	
	Examiner	Art Unit	
	Van Kim T. Nguyen	2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *August 5, 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5-15* is/are rejected.

7)☒ Claim(s) *3 and 4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to communications filed on October 15, 2008. Claims 1-15 remain pending in the application.

Response to Arguments

2. Applicant's arguments filed October 15, 2008 have been fully considered but they are not persuasive.

35 USC § 101

Applicant's arguments, see page 2, filed October 15, 2008, with respect to the rejection of claim 15 under 35 U.S.C. §101 have been fully considered and are persuasive. The rejection of claim 15 under 35 U.S.C. §101 has been withdrawn.

35 USC § 102

Regarding claim 1, Applicant's argued that Johnson does not teach the same prioritization for the allowable values, since the scaling values assigned to the attributes, i.e., the higher number indicating a greater desirability and lower number indicating a lower desirability of the allowable value, is not the same as prioritizing the allowable values in terms of a ranking or importance. Examiner respectfully disagrees. Johnson teaches prioritizing the selected routing factors (e.g., attributes are prioritized by customers; col. 9: lines 40-45); and for each selected routing factor, prioritizing the selected allowable values (e.g., input values representative of attributes, from -5 to +5, with a higher number indicating greater desirability; col. 7: lines 29-30, Tables 1-3). Clearly, the input values representative of attributes, i.e.,

assigned weight, be it -5 or +5, reflect the ranking or importance of the attributes, as decided/inputted by the user.

Johnson also teaches that once the parameters and weighting factors have been selected or determined, a determination is made for each selected routing factor which selected allowable value, if any, matches the characteristics of the link (e.g., the neural values of 0, +5, and +3 corresponding to trail 1 which is a fiber optic system that is 50km long, its cable is buried 8ft deep, and the cost to expand the trail is $150,000; col. 7: lines 33-60, Tables 1-3).

Regarding claims 6 and 15, in response to applicant's argument that Johnson fails to teach the claimed limitation process, it is noted though Figures 7-9 shows traversing the plurality of link individually between the locations (i.e., Figures 7-9 shows all possible paths corresponding to all attributes and weights), once attributes and weighting factors are chosen or determined, it is anticipated only links costs for path with chosen attributes and weighting factors are to be calculated.

Similarly, regarding claim 5, once the parameters and weighting are selected, it is anticipated only links costs for paths with chosen attributes and weighting factors are to be calculated since no further decision needs to be made regarding the shortest and/or best paths.

In addition, regarding claims 8 and 14, as shown above, Johnson teaches for each selected routing factor, prioritizing the selected allowable values (e.g., input values representative of attributes, from -5 to +5, with a higher number indicating greater desirability; col. 7: lines 29-30, Tables 1-3), thus Johnson teaches using the prioritization to calculate a link cost.

The indicated allowability of claims 11-12 is withdrawn in view of the newly discovered references to Johnson (US 6,078,946), in view of Odiaka (US 6,829,347). Rejections based on the newly cited references follow.

Claim Rejections - 35 USC § 102

3. Claims 1-2, 5-8 and 10-11 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US 6,078,946).

Regarding claim 1, Johnson discloses:

selecting one or more routing factors from the set of routing factors (e.g., each path has a number of attributes including reliability, cost, speed, distance, expandability, etc. that can be combined to determine the relative desirability of the path attributes; col. 3: lines 56-58 and col. 7: lines 4-10);

for each selected routing factor, selecting one or more of the allowable values (e.g., input values representative of attributes, from -5 to +5, with a higher number indicating greater desirability; col. 7: lines 29-30, Tables 1-3);

prioritizing the selected routing factors (e.g., attributes are prioritized by customers; col. 9: lines 40-45);

for each selected routing factor, prioritizing the selected allowable values (e.g., input values representative of attributes, from -5 to +5, with a higher number indicating greater desirability; col. 7: lines 29-30, Tables 1-3); and

for any given link in the network:

determining for each selected routing factor which selected allowable value, if any, matches the characteristics of the link (e.g., the neural values are 0, +5, and +3 matches trail 1, which is a fiber optic system that is 50km long, its cable is buried 8ft deep, and the cost to expand the trail is $150,000; col. 7: lines 33-60, Tables 1-3);

combining the prioritization of each matched value with the prioritization of that value' s corresponding routing factor to determine a cost for each factor (e.g., the cost of the shortest trail attribute for trail 1 is (0*.0.8); col. 9: lines 40-60, Tables 1-3); and

summing the combined costs for each selected routing factor to determine the cost for the link (col. 9: lines 55-60).

Regarding claim 2, Johnsons also discloses:

determining a weight for each selected routing factor based on the prioritization of the factor (col. 9: lines 33-50);

for each selected routing factor, determining a cost for each of the selected allowable values based on the prioritization of the values (e.g., the cost of the shortest trail attribute for trail 1 is (0*.0.8); col. 9: lines 40-60, Tables 1-3); and

wherein the combining step combines the cost of each matched value with the weight of that value's corresponding routing factor to determine the cost for each factor (col. 9: lines 55-60).

Regarding claim 5, Johnsons also discloses determining, combining, and summing steps are only performed if it is first determined that each of the selected routing factors apply to the

given link and if at least one of the selected allowable values for each factor applies to the given link (col. 9: lines 30-60).

Regarding claims 6, 10 and 15, Johnson also discloses a method, comprising:

selecting one or more routing factors from the set of routing factors (e.g., each path has a number of attributes including reliability, cost, speed, distance, expandability, etc. that can be combined to determine the relative desirability of the path attributes; col. 3: lines 56-58 and col. 7: lines 4-10);

for each selected routing factor, selecting one or more of the allowable values (e.g., input values representative of attributes, from -5 to +5, with a higher number indicating greater desirability; col. 7: lines 29-30, Tables 1-3);;

assigning a weight to each selected routing factor (e.g., each attributes is assigned a weight based on customer's priorities, col. 9: lines 33-50);

for each selected routing factor, assigning each selected allowable value a cost (e.g., input values representative of attributes, from -5 to +5, with a higher number indicating greater desirability; col. 7: lines 29-30, Tables 1-3);

traversing a plurality of links through the network to determine one or more possible routes wherein a given link is only traversed if each of the selected routing factors applies to the link and if at least one of the selected allowable values for each factor applies to the link (Figures 7-9, col. 12: line 1- col.13: line 49), and wherein a cost is calculated for each traversed link by:

determining for each selected routing factor which selected allowable value matches the characteristics of the traversed link (e.g., trail 1 is a fiber optic system that 50km long, its cable is

buried 8ft deep, and the cost to expand the trail is $150,000; thus the neural values are 0, +5, and +3, respectively; col. 7: lines 33-60, Tables 1-3);

for each matched allowable value, weighting the cost of the matched value by the corresponding weight of the routing factor (e.g., the cost of the shortest trail attribute for trail 1 is (0*.0.8); col. 9: lines 40-60, Tables 1-3); and

summing the weighted costs to determine a cost for the traversed link (col. 9: lines 55-60); and

using the link costs of the traversed links to select a route from among the one or more determined possible routes (e.g., best trails are identified, then combined, as appropriate, to provide the best path; col. 13: lines 2-5).

Regarding claim 11, Johnson also discloses determining if a given selected routing factor applies to the link and if the factor does not apply, using a large cost for that factor when calculating the link cost (if a preferred path is not available, choose the next longer path, i.e., path with a larger cost factor; col. 2: lines 40-44).

Regarding claims 7 and 13, Johnson also discloses the weights assigned to the selected routing factors are based on a prioritization of the factors (col. 9: lines 33-50).

Regarding claims 8 and 14, Johnson also discloses the costs assigned to the selected allowable values for each selected routing factor are based on a prioritization of the allowable

values (e.g., input values representative of attributes, from -5 to +5, with a higher number indicating greater desirability; col. 7: lines 29-30, Tables 1-3).

Claim Rejections - 35 USC § 103

4. Claim 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, as applied to claims 6 and 10 above, respectively, in view of Odiaka (US 6,829,347).

Johnson does not explicitly disclose at least one of the selected routing values a default value is selected in addition to the selected one or more allowable values.

Odiaka teaches at least one of the selected routing values a default value is selected in addition to the selected one or more allowable values (e.g., QoS profile, by default, only the basic service type is available; col. 7: lines 16- col. 8: lines 46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Odiaka's method of selecting a trail in Johnson's system, in order to mediate between a required class of service requested by a user and the available quality of service which can be supported.

Regarding claim 12, Johnson does not explicitly disclose, if no selected allowable value for a given selected routing factor matches the characteristics of the link, using a large cost value for that factor when calculating the link cost.

Odiaka teaches if no selected allowable value for a given selected routing factor matches the characteristics of the link, using a large cost value for that factor when calculating the link cost (e.g., if a suitable policy service type is not defined, an automated/or non-automated operator may

create a suitable profile. Obviously, a large cost value for a routing factor is a possible choice; col. 7: lines 9-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Odiaka's method of selecting a trail in Johnson's system, in order to mediate between a required class of service requested by a user and the available quality of service which can be supported.

Allowable Subject Matter

5. Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Van Kim T. Nguyen
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